

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jurgen Scholzig
Ulrich Jung
Ruth Kremer
Thomas Walther

Art Unit: Unassigned

Application No.

Examiner: Unassigned

Filed:

For: SHEET-GUIDING DEVICE FOR A
PRINTING MACHINE

PENDING CLAIMS AFTER ENTRY OF PRELIMINARY AMENDMENT

1. Sheet-guiding device for a printing machine having printing/varnishing units that are not involved in the printing/varnishing process to guide sheet printing materials in the area of blanket/plate cylinder and an associated sheet-carrying cylinder, characterized in that on the blanket/plate cylinder (12, 2) there is arranged a plate or film (11) with an ink/varnish-repellent surface, in that the blanket/plate cylinder (12, 2) can be driven at machine speed and a printing material fixed in the grip of grippers, with the printed and/or varnished side assigned to the blanket/plate cylinder (12, 2), can be conveyed through a printing/varnishing nip (10) by means of the sheet-conveying cylinder (1).

2. Sheet-guiding device according to Claim 1, characterized in that the plate or film (11) is a printing plate/printing film which has a layer of silicone rubber on the surface.

3. Sheet-guiding device according to Claim 2, characterized in that the printing plate/printing film (11) is a planographic printing plate.

4. Sheet-guiding device according to Claim 3, characterized in that the printing plate/printing film (11) is a planographic printing plate for damping-solution-free

offset printing.

5. Sheet-guiding device according to Claim 1, characterized in that the plate/film (11) is a relief printing plate.

6. Sheet-guiding device according to Claim 1, characterized in that the rotatable blanket/plate cylinder (12, 2) can be positioned in a print off position.

7. Sheet-guiding device according to Claim 1, characterized in that the rotatable blanket/plate cylinder (12, 2) can be positioned with a defined printing pressure.

8. Sheet-guiding device according to Claim 1, characterized in that the plate/film (11) has a surface of chromium or aluminium or anodized aluminium or contains at least a proportion thereof.

9. Sheet-guiding device according to Claim 1, characterized in that the plate/film (11) has a surface of organic/inorganic hybrid polymers on an aluminium substrate.

10. Sheet-guiding device according to Claim 1, characterized in that in the cracks, gaps or pores in the chromium, aluminium or anodized aluminium surface, the plate/film (11) has inlays of at least one fluoropolymer.

11. Sheet-guiding device according to Claim 1, characterized in that the chromium surface of the plate/film (11) is polished to a mirror finish.

12. Sheet-guiding device according to Claim 1, characterized in that the plate/film (11) can be brought into contact with a release agent.

13. Sheet-guiding device according to Claim 1, characterized in that the release agent contains at least silicone and/or water.

14. Sheet-guiding device according to Claim 1, characterized in that the release agent can be transferred to the plate/film (11) that is fixed to the plate cylinder (2) via the metering system (4) and the applicator roll (3).

15. Sheet-guiding device according to Claim 1, characterized in that the release agent can be transferred to the plate/film (11) by means of a spray device that extends in the axial direction over the width of the plate cylinder (2).

16. Sheet-guiding device according to Claim 1, characterized in that the plate/film (11) can have its temperature controlled.

17. Sheet-guiding device according to Claim 1, characterized in that a temperature control device supplying cold air is assigned adjacent to the plate/film (11).

18. Sheet-guiding device according to Claim 1, characterized in that the blanket/plate cylinder (2) carrying the plate/film (11) can have its temperature controlled within the cylinder circumference.

Amendment - Preliminary (Rev. 6/19/2001)

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